P

Name _____

Practice: For use after Lesson 3.8, Algebra 2 with Trigonometry

Algebra 2 GHP
Unit #9
WS #3

Equations of a Line

Write in slope-intercept form the equation of the line that has slope m and that passes through the given point.

1. $m = 3, (-4, 1)$ _____
2. $m = -1, (-2, -3)$ _____
3. $m = -3, (-1, 11)$ _____
4. $m = 5, (3, -4)$ _____

Write in standard form the equation of the line through the given points.

5. $(3, 3), (4, 5)$ _____
6. $(0, 5), (2, 3)$ _____
7. $(-1, 11), (1, -7)$ _____
8. $(-1, -1), (-2, -5)$ _____

Write in slope-intercept form the equation of the line that has slope m and that passes through the given point.

9. $m = \frac{1}{2}, (-3, 1)$ _____
10. $m = -\frac{2}{3}, (6, 1)$ _____
11. $m = \frac{2}{3}, (2, -5)$ _____
12. $m = -\frac{1}{2}, (-5, -1)$ _____

Write in standard form the equation of the line through the given points.

13. $(-5, 2), (3, -2)$ _____
14. $(1, 2), (-5, 6)$ _____
15. $(0, -2), (1, 1)$ _____
16. $(0, 6), (1, 4)$ _____

Application

17. **Geometry** Two adjacent sides of a rectangle intersect at $(-5, 1)$. One side has a slope of $\frac{2}{3}$. Write equations in standard form for the lines containing these sides.

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MIXED PRACTICE

Write an equation of the line perpendicular to the given line and with the given y-intercept.

18. $y = 4x - 1, b = 5$ _____
19. $3y = -x + 6, b = -1$ _____

Write in slope-intercept form the equation of the line that has slope m and that passes through the given point.

20. $m = 6, (-2, 1)$ _____
21. $m = -\frac{2}{3}, (-4, -7)$ _____